

Request for Proposal – N00253-04-Q-0122  
Submarine Non-Tactical Application Delivery Interface Systems (SNADIS)

The Naval Undersea Warfare Center Division Keyport intends to issue an order against the applicable Federal Supply Schedule (FSS) for the following requirement:

Item No.	Schedule of Supplies/Services	Qty	UI	Unit Price	Total
0001	Base Period of Performance from date of award through 31 Jan 05. Technical and expert support to provide systems engineering software application development, integration, and configuration management support for the SNADIS program. This entails the efforts to design, develop, integrate, test, produce, prepare, and deliver SNADIS and associated documentation, provide technical support, provide training, develop software, and develop users manuals. Technical and expert support to include contractor and subcontractor support, in the development of production versions of SNADIS modules for the web-based application environment designed to support decision making and distribution of information affecting mission, readiness, general ship administration tasks – afloat and ashore on US Navy Submarines in accordance with the attached Statement of Work.	1	GP		
0002	First Option Period. Period of Performance: 12 Months To provide services identified in CLIN 0001.	1	GP		
0003	Second Option Period. Period of Performance: 12 Months To provide services identified in CLIN 0001.	1	GP		
0004	Third Option Period. Period of performance: 12 Months To provide services identified in CLIN 0001.	1	GP		

The Government contemplates award of a ceiling priced order for labor-hour and/or time-and-materials resulting from this solicitation.

The applicable NAICS Code to this requirement is 541990 with a size standard of \$6,000,000.00. This is not a formal solicitation under Federal Acquisition Regulation (FAR) Part 15 or Part 13, Simplified Acquisition, but an invitation to compete under the terms and conditions of your General Services Administration (GSA) Federal Supply Schedule (FSS) contract in accordance with FAR Subpart 8.4. Offerors must have a contract with GSA under the FSS to be considered for award. Offerors are requested to provide the applicable GSA Schedule and GSA Contract Number and Special Item Number (SIN).

All questions regarding this requirement should be submitted in writing as soon as practicable after receipt of solicitation. Questions may be forwarded to Monique Klose via facsimile to (360) 396-7036 or E-mail: [klosem@kpt.nuwc.navy.mil](mailto:klosem@kpt.nuwc.navy.mil). Proposals may be faxed or E-mailed to the preceding number/address. Proposals shall be submitted no later than Friday, 02 Apr 04, 10:00 am (Pacific Time).

Any exceptions or deviations to the Government specifications must be clearly identified in a cover letter and submitted as part of your proposal. If deviations are proposed, the offeror shall provide an explanation of how the proposed service meets the requirements of the specifications. Failure to notify the Government of all deviations prior to award may be grounds for contract termination.

Material for which the contractor will be reimbursed under the contract includes consumables needed for completion of tasks (e.g. film, paper, computer diskettes). Equipment rental and administrative services such as reproduction copies and Federal Express may also be included in this material category.

Travel includes airfare, per diem, car rental, and lodging at a distant location. Travel does not include any costs for relocation of personnel or for intra-office travel between contractor (subcontractor) facilities for the purpose of staffing in support of this contract.

CLINs 0002 thru 0004 are Option Quantity Items only and in no way are purchased or guaranteed under the resulting contract. Work cannot be started or performed under the Option Lots/Items without Option Exercise by the Contracting Officer. Options will be individually exercised in accordance with FAR Clause 52.217-9.

**FAR 52.217-9 Requirements:**

Notice of Intent: Thirty Days Prior to Contract Expiration

Exercise: Within 10 Days Prior to Contract Expiration

Not To Exceed: 4 Years

# **Submarine Non-Tactical Application Delivery Interface System (SNADIS)**

## **Statement of Work**

**Developed by  
Naval Undersea Warfare Center (NUWC) Division  
Keyport, WA**

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**TITLE:** Submarine Non-tactical Application Delivery Interface System (SNADIS) Development, and Support.

**TECHNICAL ASSISTANT:** To be named at issuance of order

**PLACE OF PERFORMANCE:** Contractor Facilities

**PERIOD OF PERFORMANCE:** Date of award to 31 JAN 2005

## **1 BACKGROUND:**

Naval Undersea Warfare Center Division, Keyport (NUWCDK) is chartered and tasked to support submarine technical data and training requirements by Naval Sea Systems Command (NAVSEA) 07L1. NAVSEA 07L1 has identified a requirement for a shipboard web-based application environment (Submarine Non-Tactical Application Delivery Interface System (SNADIS)) designed to support decision making and distribution of information affecting mission, submarine readiness, and general ship administration tasks - afloat.

SNADIS will be a web-based application environment designed to support tasks, decision making and distribution of information affecting mission, submarine readiness, and general ship administration tasks – both afloat and ashore. It will function both in a connected (networked) and disconnected (standalone) manner based on the operational situation. SNADIS will have a service-oriented architecture (SOA) consisting of a collection of services communicating with each other involving data passing and two or more services coordinating required activities. The contractor will analyze the SNADIS requirements identified by the fleet and outlined in reference (a) and develop the application services and the SOA to connect these services to each other. The core functionality of SNADIS will be built around the SOA and a Performance Centered Design (PCD) approach. Human Systems Integration (HSI) a systems engineering process which integrates the human as part of the system design shall be applied throughout all systems engineering phases to develop a system-level understanding of combined human machine system issues and measurable operational requirements as they relate to SNADIS development. These parameters can then be used to evaluate other disparate “home grown” systems being designed by independent sources such as SUBWEB, TRAIN, etc.

The SNADIS application services features a core and set of individual modules performing certain functions that are well-defined, self-contained, and may or may not depend on the context or state of other services. SNADIS will provide intelligent, adaptive solutions for training, administration and management as well as most shipboard administrative functions supporting personnel, logistics and maintenance. SNADIS will also provide improved navigation and delivery with task-oriented tools, interactive reports, information, and integrated learning products. It will seamlessly interface and interact with (software) applications and information resources, using a performance-centered design approach to support workflow and execute business processes. The individual modules will form the services of SNADIS to provide specific performance support for operations, maintenance, training and administration and will be complemented by common functions and interfaces to other Navy systems such as Distance Support, future expert systems and streaming information displays. SNADIS will be developed under a phased, spiral development process that involves the Fleet. See Attachment 4 for more detail.

SNADIS will be developed in a phased approach with priorities determined by the Submarine Fleet, see Attachment 2 for complete list of requirements, and on availability of funding to support these development efforts. SNADIS core and the first two modules, Training and Command Monitoring, are to be developed in the first 10 months after contract award, Attachment 3 identifies the fleet priorities for FY04. SNADIS core centralized services will be provided as part of the underlying SNADIS platform, these services will serve as generic data accessors for their respective types of information including:

- Personnel – Personnel information, such as name, DOB, rate/rank, etc.
- Security
  - Authentication
  - Authorization – mapping user IDs to user roles within applications
  - Single sign-on (SSO)
- Organization structure and mapping – Billet structure as well as mapping users to roles within the command (e.g., FTC Jones is the FTLPO and the CCC, LT Smith is the MPA, etc.)
- Scheduling/Calendar – Command, department, division, etc.
- Messaging – send messages to users via email, etc.
- Workflow/Business Process – route information between people and business systems

The SNADIS core development framework will provide a disciplined approach to developing applications that will enhance submarine force productivity and quality in accomplishing tasks related to training and readiness. The framework will address the discovery of essential requirements that represent the features and capabilities that the system must possess in order to fulfill its purpose, regardless of how the system is implemented.

The training application module has begun as a SUBPAC independent effort and will be completed and provided to the Fleet as Version 1.0 prior to the completion of the full SNADIS architecture to obtain user feedback for use in developing the full SNADIS architecture. The Command Monitoring Module, Version 2.0, will be completed in parallel to development of the Core SNADIS architecture which will be used as the foundation to build Version 2.0 and the remainder of the application versions modules identified in the list below. Fleet prioritization and availability of funding will be the determining factors on which functional areas are tackled in successive development efforts in FY05, FY06, and FY07,

funding has been identified for these four years for the development efforts although additional funding may become available to accelerate the development efforts.

Specific shipboard functional areas identified under the SNADIS “umbrella” application environment are:

- SNADIS architecture (Core)
- Training (FY04) Module 1.0
- Command Monitoring (FY04) Module 2.0
- Watchstander/operator Qualification/Requalification and Proficiency (TBD)
- Personnel General Administration (TBD)
- Personnel Medical Administration (TBD)
- Operations Support (TBD)
- Maintenance Support (TBD)
- Ship’s Routine Evolutions (TBD)
- Readiness Inspections and Effectiveness Measurement (TBD)
- Knowledge Management (TBD)

## **2 SCOPE:**

This Statement of Work (SOW) sets forth the work efforts required to provide systems engineering software application development, integration, and configuration management support for the SNADIS program. This entails the efforts to design, develop, integrate, test, produce, prepare, and deliver SNADIS and associated documentation, provide technical support, provide training, develop software, and develop user manuals. This SOW includes the associated Program Management, System Engineering, Configuration Management, Quality Assurance, Software Development, Testing, Technical Publications, Operations Training and System Testing. The contractor is responsible for providing the necessary materials, services, and the necessary support documentation needed to complete the tasks identified in this SOW. The scope of work includes support of the Government conducted Operational Test & Evaluation (OT&E) of the final configuration of SNADIS.

The contractor shall provide technical and expert support to NUWCDK C411 to include contractor and subcontractor support, in the development of production versions of SNADIS modules for the web-based application environment designed to support decision making and distribution of information affecting mission, readiness, and general ship administration tasks - afloat and ashore on US Navy submarines.

Fleet requirements for SNADIS embody needs for interoperability with existing applications and services (i.e., NTCSS, ATIS/WebATIS/TDKM, etc.); consequently, the SNADIS application development and environment needs to consider these interfaces in applications they deliver. Based on Fleet Flag-level endorsement/priorities and OPNAV direction, SEA07L1 will undertake the responsibility for certain application development associated with SNADIS. The functional requirements for these applications will be defined by the Fleet. Applications built under this subtask will be procured and must be delivered to use the shipboard software solution that is provided by the IT-21 program. Refer to Attachment (2) for specific software modules to be procured and delivered in FY04. Software application modules to be developed and delivered in whole or in part will be focused on Shipboard Training Management, Command Monitoring and Tracking, Readiness Inspections and Assessments, Professional Development, Maintenance Support, and Force Knowledge Management.

### **2.1 Program and Data Management.**

#### **2.1.1 Program Management.**

The contractor shall establish and maintain program management practices throughout the period of performance. Program management practices shall provide visibility into the contractors’ organization and techniques used in managing the program, specifically subcontractor and data management. Documentation shall be readily available to Government representative(s) during planned visits.

#### **2.1.2 Subcontractor Management.**

The contractor is responsible for performance of requirements delineated in this SOW, and shall institute appropriate management actions relative to subcontractor performance. Requirements that are contractually specified shall apply to subcontractor performance; however, the contractor shall be accountable for compliance of subcontractors and is responsible for ensuring all deliverable products comply with the contract requirements.

### **2.1.3 Data Management.**

The contractor shall establish a single, centralized system for management of all data required under this contract. The contractor, in developing information that will be furnished to the Government, shall make the maximum use of existing data and provide maximum multiple use of technical information. Specific data management functions shall include schedule control for deliverables, maintenance of deliverables, approval of deliverable format, and distribution and delivery of data products. The system shall include facilities for storage of all data developed or used for this contract and shall provide equal access to data by the Government. The contractor shall ensure all data is centrally available for Government review to ensure continuity of the system fabrication and supporting documentation. The Government reserves the right to review all data associated with and developed for SNADIS.

#### **2.1.3.1 Schedule Planning.**

The contractor shall maintain an accurate schedule of program events and recommend program schedules, including review and evaluation techniques, which provide for the earliest delivery schedule while at the same time satisfying all requirements in a cost effective manner. The program schedule shall include all significant events, and a Program Planning Milestone Chart shall depict major tasks and events from start to completion of the contract. The contractor shall notify the Government in writing of any anticipated or projected work stoppages or delays that will impact schedules.

#### **2.1.3.2 Assignment of Responsibility and Authority.**

The contractor shall identify the organizational elements responsible for conducting the activities delineated in this SOW. Responsibilities shall be assigned and clear lines of authority defined for determining and controlling the resources necessary to satisfy each element of this SOW. The following billets shall be considered key personnel. The contractor shall appoint, in writing, all persons filling these billets. The contractor shall notify the Government within ten days of any changes regarding authority, responsibility, or key personnel changes made by the contractor during the period of performance.

- a. Program Manager. The contractor shall designate a Program Manager (PM) who shall possess sufficient corporate authority to manage, direct, execute and control all elements of the contract. The PM shall serve as the primary point of contact between the contractor and the Government, and be responsible for the coordination of all contractor activities related to the contract.
- b. Systems Engineer. The contractor shall designate a Systems Engineer (SE) who shall possess sufficient authority to manage, direct, execute and control all software engineering elements of the contract. The Systems Engineer (SE) will elicit operational requirements from the user community and establish system requirements. The SE carries out design work to transform overall system requirements and architecture to a complete systems design. The SE provides guidance to programmers and analysts as they work on detailed design and coding, testing, integration of SNADIS software modules and components. The SE assures consistency of overall effort.
- c. Test Engineer. The contractor shall designate a Test Engineer who shall possess sufficient authority to manage, direct, execute and control all test and engineering elements of the contract.
- d. Configuration Management (CM) Manager. The contractor shall designate a CM Manager who shall possess sufficient authority to manage, direct, execute and control all CM elements of the contract.

### **2.2 Systems Engineering.**

The contractor shall establish and maintain an effective system-engineering program throughout the analysis, design, testing and production processes. The Office of the Under Secretary of Defense (Acquisition, Technology and Logistics) / Defense Systems identifies the Systems Engineering Key Areas of Responsibility as follows;

- Configuration & Data Management
- Integrated Product and Process Development (IPPD)
- Manufacturing & Production
- Quality
- Reliability & Maintainability (R&M)
- Risk Management
- Software Engineering
- Systems Engineering
- Test and Evaluation

#### **2.2.1 Open Systems Design.**

The contractor shall use an open systems approach as the preferred design strategy to: (1) choose commercially supported specifications and standards for selected system interfaces (external, internal, functional and physical), products, practices, and tools; and (2) build open system architectures as the primary foundation in developing the proposed system and its elements. Open systems is a system design philosophy that uses widely-accepted, industry-approved interface standards that

will allow technological upgrades in system components to be easily inserted in the future. The contractor shall identify the means for ensuring conformance to open systems standards and profiles throughout the development process and provide evidence that the process being used to manage the open systems approach support open system benefits such as portability, interoperability, technology insertion, vendor independence, reusability, scalability, and commercial product based maintainability.

### **2.2.2 Human Systems Integration.**

The contractor shall apply effective Human Systems Integration (HSI) principles during the Performance Centered Design (PCD) of SNADIS during analysis, design, production and integration efforts. The contractor shall ensure manpower, personnel, training, and human factors engineering requirements have been incorporated into the layout, design, and arrangement of equipment having an operator interface. The HSI program shall ensure the SNADIS can be operated, maintained, supported and controlled in its intended environment. PCD stems from an understanding of the work, the workers, the operational requirements, Audience Analysis/Profiles, Process/Task Analysis, Performance Objectives, Knowledge Mapping, and Use Cases/Conceptual Model. PCD considerations need to be made at the same time as the operational and performance requirements are being defined to establish the framework for the system.

- a. Manpower. The manpower requirements shall ensure that the most efficient and cost effective use of manpower and contractor support is being used and identify any cost or schedule issues that could adversely impact SNADIS.
- b. Personnel. The contractor shall establish personnel principles that will reduce manpower and training costs.
- c. Training. The contractor shall apply PCD principles that will enhance the user's capabilities and reduce individual and collective training costs. The contractor shall maximize the use of new learning techniques, simulation technology, and embedded training to provide anytime, anyplace training that reduces the demand on the training establishment and reduces Total Ownership Cost (TOC).
- d. Human Factors Engineering. Human factors design requirements shall be established to develop effective man-machine interfaces. It shall preclude system characteristics that require extensive physical, complex manpower or training intensive tasks that result in frequent or critical errors.

## **2.3 Meetings, Formal Reviews, Conferences, and Audits.**

The contractor shall plan, host, attend, coordinate, support and conduct the meetings, in-process reviews, formal reviews, conferences, and audits (hereinafter called "reviews"). The reviews shall be conducted at Government and contractor facilities. Reviews requiring demonstration and/or examination of equipment shall be conducted at the contractor's facility or designated government test laboratory (NUWC Keyport or NSWC Carderock.) The contractor shall prepare agendas and conference presentation materials, and provide minutes and reports following each review. The Government reserves the right to cancel any review or to require any review to be scheduled at critical points during the period of performance. Action item documentation, assignment of responsibility for completion and due dates shall be determined prior to adjournment of all reviews. A summary of all action items, responsible parties, and estimated completion dates shall be included with the minutes.

### **2.3.1 Post Award Conference.**

A post award conference shall be held at the contractor's facility within 30 days after contract award. The purpose of this review is for the contractor to review and demonstrate to the Government the management procedures, provide progress assessments, review of technical and other specialty area status, and to establish schedule dates for near term critical meetings/actions. The contractor shall present management, key personnel, and program implementation processes. The post award conference shall also be used to resolve any issues in with the SNADIS requirements and overall plan; however, it will not be used as an opportunity to impose additional requirements. The contractor shall show and/or demonstrate evaluations of development techniques, skills, processes, and inspection techniques to be used in accomplishing each software traceability item. The review will evaluate risk resolution (on a technical, cost, and schedule basis) of the design and will assess the technical risk associated with the selected development (build) methods (processes). All single source, sole source, and diminishing source(s) shall be identified.

### **2.3.2 Reviews**

In Process Reviews (IPR) will be held on a quarterly basis or as needed basis on a date and at a location mutually agreed upon. The Government reserves the right to cancel any review or to require any review to be scheduled during the period of performance. The contractor's progress, management, technical support services (if any), integrated logistics support, administrative, assurance of compliance with contract requirements, program status, funding, problem identification and resolutions shall be agenda items. Actual versus expected performance of each area shall be addressed. The contractor shall prepare presentation materials providing an overview of all agenda items. The agenda shall include the functions in the following subparagraphs, when necessary.

#### **2.3.2.1 Final Design Review**

IPR's shall also be used to present final designs that incorporate material identified from the post award conference and other available means. A detailed review of the software design for SNADIS and all data items required by the contract will be conducted. The contractor shall provide a trace capable of demonstrating the design furnished at the review implements the performance requirements of SNADIS and present the methods used to verify and validate the design. An assessment of

the results of analyses conducted on ships' configurations will be made to ensure the detailed design solutions satisfy the established requirements. Topics covered when reviewing final designs shall include, but not be limited to the following:

- a. Detailed presentation of program plan indicating Analysis, Design, Build, Test Phases and Specification/Interface specification/drawings
- b. Detailed presentation of Software Design
- c. HSI considerations and Performance Centered Design (PCD) user interface design architecture
- d. Results from Usability and System Performance / Integration Tests
- e. Interoperability considerations including (NTDPS, DS, ATIS, WebATIS, etc.)

### **2.3.2.2 Functional Configuration Review**

The functional configuration shall be reviewed to verify the program and its traceability items (TIs) are accurate, complete, and compatible, and the TI has achieved the performance and functional characteristics delineated in the Performance Specification. The contractor shall participate and assist the Government in the development of these reviews, and shall use the guidelines contained in MIL-HDBK-61A, section 8 or equivalent; use of other applicable review guidelines must be reviewed and approved by the government prior to use by the contractor. The contractor shall be responsible for providing the system to be audited, facilities, personnel, documentation (including drawings), and other support as may be required. The contractor shall ensure that new information stemming from the configuration review appears in the meeting minutes after each IPR.

## **2.4 Configuration Management Process.**

The contractor shall maintain a configuration management (CM) process for the control of all software configuration documentation, media and parts representing or comprising SNADIS. The principles contained in EIA-649, MIL-HDBK-61A, or equivalent industry standard methodology may be used for guidance, use of standards other than EIA-649, MIL-HDBK-61A will be reviewed and approved by the government prior to use by the contractor. The contractor shall provide their Configuration Management Plan to the Government for review. The contractor's CM process shall consist of configuration identification, configuration control, configuration status accounting, and configuration audits. Consideration for interfacing with other acquisition requirements such as design review, assurance, and other program related disciplines shall be addressed. The contractor shall designate a CM representative to serve as a primary point of contact to the Government for all CM matters. The contractor's representative shall be responsible for any subcontractor's CM efforts. The contractor shall notify the Government of any changes at the contractor's facility, which affect the contractor's established CM process.

### **2.4.1 Configuration Identification.**

The contractor shall participate in a joint Government/contractor integrated team to designate traceability items (TIs) to be managed by the Government and those to be managed by the contractor at a lower level/tier. For those TIs that have been identified for Government control, the contractor shall provide form, fit, function, and interface documentation necessary for configuration status accounting. The contractor shall establish management practices for those lower level/tier TIs.

### **2.4.2 Baseline Management.**

The contractor shall be responsible for maintaining the currency and accuracy of the established baseline to ensure form, fit and function of SNADIS. The contractor shall establish definitive processes, which identify how the baseline will be managed/maintained. These processes shall be defined in the contractor's configuration management plan and made available for Government review.

#### **2.4.2.1 Functional Baseline.**

The Performance Specification, Reference C, establishes the functional baseline. Any issues with this baseline should be resolved at the Post Award Conference. Government approval shall be required prior to making changes to the functional baseline.

#### **2.4.2.2 Allocated Baseline.**

The allocated baseline will be established upon successful completion of the overall system/system module final design review. The allocated baseline shall describe the TIs to a level of design detail, which is greater than that for a functional baseline. The allocated baseline shall be supplemented by specifications, software architecture, and related data as necessary to specify: (1) the essential TI functional characteristics, as allocated from higher-level TI; (2) external and internal interface requirements for each TI; and (3) constraints on the design of a TI, including Government Furnished Equipment (GFE) employed, interfaces, component standardization and ILS requirements. Government approval shall be required prior to making changes to the allocated baseline.

#### **2.4.2.3 Product Baseline.**

The contractor shall establish the product baseline by the successful completion of the Post Award Conference. The product baseline describes all the necessary functional and physical characteristics including verifications required to demonstrate that SNADIS meets all required performance parameters. The contractor shall make changes to the product baseline only through the Requirements Management Process, Reference B.



### **2.4.3 Configuration Control.**

The contractor shall establish and maintain positive control methods and procedures that ensure the integrity and traceability of TI design throughout the life cycle of Production and deployment and establish the CM process. The contractor shall apply configuration control to established TIs and to newly developed TIs. Once baselines are established, the contractor shall not implement a design or performance change to TIs without receiving prior authorization from the oversight group. The need to deviate from the written procedures or materials contained in system software architecture documents or other technical documentation shall be requested through the processes outlined in the Requirements Management Process and managed with the approved contractor CM process.

## **2.5 Testing/Verification.**

### **2.5.1 Test Plan.**

The contractor shall prepare a Test Plan (TP) that encompasses all usability, sub-system and system level testing. The TP shall be the top-level working document that ties all contractor and subcontracting test activities together. The Government shall review and approve the TP and all applicable updates. The following areas shall be emphasized in the TP:

- a. Test event
- b. Purpose of the test
- c. Date of test start and end
- d. Location of the test
- e. Description of test event and requirements
- f. Scenario / scripts / instructions required to conduct test event
- g. Need for Government test support, especially laboratories
- h. Overall schedule of individual tests
- i. Interoperability analysis/testing

### **2.5.2 Contractor Support to Government Testing.**

The contractor shall support Government test efforts including Developmental Testing and Operational Testing by providing on-site personnel and in-house support. The contractor shall support each Government test by providing on-site maintenance, training, logistics, and technical support for the period of the test. Test support requirements will be tailored to the test being conducted. The contractor shall provide all required organizational level support needed to maintain SNADIS during each government test. The contractor shall analyze test data, conduct failure analysis, and maintain a data tracking system throughout all test efforts. Government testing includes Joint Interoperability Certification Testing, Operational Test & Evaluation, and System Integration/Qualification Testing.

## **2.6 Maintenance Planning.**

The contractor shall conduct maintenance planning to define optimal maintenance activities, which fully support the SNADIS maintenance concept. Maintenance shall consist of simple tasks performed by the user and simple repairs performed by the administrator.

## **2.7 Software.**

### **2.7.1 Software Development Plan.**

The contractor shall use existing Commercial-Off-The-Shelf (COTS) and Non-Developmental Item (NDI) software and hardware products to the maximum extent possible in the development, design, integration, and production of SNADIS. The contractor shall develop and implement plans for conducting software development activities when new software is developed. The plans shall include specific standards, methods, tools, actions, and responsibility associated with the development and qualification of all requirements including safety and security, Design models, Iteration plan, and Implementation Model.

### **2.7.2 Software Testing Program.**

The contractor shall conduct separate software testing for all newly developed or modified COTS software in accordance with industry-standard software testing practices.

### **2.7.3 Source Code and Executable Software.**

The contractor shall provide all applicable software source code, build files/scripts and executable software developed in support of SNADIS.

### **2.7.4 Software Transition Plan.**

The contractor shall provide a Software Transition Plan (STrP) to include a listing of all Software Support Environment Tools (SSET) used to develop software/firmware for SNADIS. Prior to all testing, the contractor shall deliver one set of all SSET including source code, build files/scripts, and executable software developed under this contract, and licenses for Government use.

### **2.7.5 Software Version Description.**

The contractor shall provide a Software Version Description (SVD). The SVD shall identify and describe the exact version

of software including the build and installation instructions of one or more Computer Software Traceability Items (CSTIs) and shall be used to release, track, and control software versions.

#### **2.7.6 Software User Documentation.**

The contractor shall provide software user documentation consisting of: a) Software User Manual (SUM); b) online help (where applicable); c) tutorials (where applicable); d) maintenance/administration guides (where applicable). The SUM shall describe to a hands-on software user how to install and use a Computer Software Traceability Item (CSTI), a group of related CSTIs, or a software system or subsystem. It may also cover a particular aspect of software operation, such as instructions for a particular position or task. Online help will be included where applicable within the software to provide context-sensitive guidance to the user. Tutorials will be provided where applicable to demonstrate basic software usage to the user. Maintenance/administration guides will provide system administrators with instructions on the maintenance and operation of the system. Documentation shall be provided via the online system using PCD. PCD will help establish and verify when and where these helps are needed.

#### **2.7.7 System/Subsystem Design Description.**

The contractor shall provide a System/Subsystem Design Description (SSDD). The SSDD shall describe the system- or subsystem-wide design and the architectural design of a system or design of a system or subsystem. A verification cross reference matrix (VCRM) shall be included as an appendix. This VCRM shall trace requirements from the Performance Specification and the statement of work to the design.

### **3 REFERENCES:**

#### **3.1 Approved Source Documents and Status of In-Process Source Documents**

- a. Submarine Non-Tactical Application Delivery Interface System (SNADIS) Requirements Description Version 1.0 of 30 November 2003
- b. Submarine Non-Tactical Application Delivery Interface System (SNADIS) Requirements Management Process Version 6.0 of 2 January 2004
- c. Submarine Non-Tactical Application Delivery Interface System (SNADIS) Technical Architecture Description
- d. Risk Management Guide for DOD Acquisition, Fifth Edition of June 2002 (or more recent).

#### **3.2 Applicable Documents**

The following documents form a part of this SOW to the extent specified herein. In the event of conflict between the applicable documents and this SOW, the SOW shall take precedence. All second tier and below references cited in mandatory compliance documents shall be considered as guidance only. Nothing in this document, however, supersedes applicable laws and regulations unless a specific exemption has been obtained.

##### **3.2.1 Military Standards and Specifications - Mandatory Compliance.**

MIL-PRF-29612B	31 Aug 01	Training Data Products
MIL-PRF-49506	11 Nov 96	Logistics Management Information

##### **3.2.2 Handbooks - Guidance Only.**

MIL-HDBK-61A	7 Feb 01	Configuration Management Guidance
MIL-HDBK-502	30 May 97	Acquisition Logistics

##### **3.2.3 Non-Government Documents.**

EIA649	1 Feb 99	National Consensus Standard for Configuration Management (Application for copies of EIA documents should be addressed to Electronic Industries Alliance Corporate Engineering Department, 2500 Wilson Boulevard, Arlington, VA, 22201 or visit <a href="http://www.eia.org">www.eia.org</a> .)
IEEE/EIA 12207	1997	Standard for Information Technology – Software Life Cycle Processes (Application for copies of IEEE/EIA 12207 should be addressed to the Institute of Electrical and Electronics Engineers, PO Box 1331, 445 Hoes Lane, Piscataway, NJ 08855-1331 or visit <a href="http://www.ieee.org">www.ieee.org</a> .)

### **4 REQUIREMENTS:**

The contractor shall perform all tasks required and delineated in this SOW to design, develop, integrate, test, produce, prepare associated documentation, provide logistic support, provide technical support, provide training, develop users

manuals and deliver SNADIS in the quantity specified in the contract. The contractor shall provide all materials, equipment, personnel, and facilities necessary to code, build, integrate, produce, and deliver the types and quantities of deliverables specified by the contract. Upon successful completion of developmental test, operational test, and first article test, the Government may exercise contract options for additional work in developing future modules of SNADIS. Implement aggressive risk management throughout the effort, including risk planning, assessment (identification and analysis), handling, and monitoring steps consistent with reference (g).

#### **4.1 TASK A: development of the SNADIS core services and modules versions year one.**

Task A will consist of the development of the SNADIS version modules one and two. The contractor shall provide technical and expert support to NUWCDK C411 to include contractor and subcontractor support, in the development of production versions of SNADIS modules for the web-based application environment designed to support decision making and distribution of information affecting mission, readiness, and general ship administration tasks - afloat and ashore on US Navy submarines. The contractor will design, develop, integrate, test, produce, prepare, and deliver SNADIS and associated documentation, provide technical support, provide training, develop software, and develop users manuals for versions 1.0 and 2.0 and associated Program Management, System Engineering, Configuration Management, Quality Assurance, Software Development, Testing, Technical Publications, Operations Training and System Testing. As directed by NAVSEA 07L, provide support to SUBLANT N10 and SUBPAC N7 in the identification, analysis and documentation of requirements for submarine force knowledge management and SNADIS initiatives. Work with the Submarine Fleet to generate and prioritize system requirements. Groom existing Submarine Fleet technology initiatives and evaluate feasibility to implement in the SNADIS Enterprise solution.

Support Government installation and evaluations of SNADIS module Versions at selected locations. Support connectivity test, performance test and synchronization test. Provide user feedback mechanism in SNADIS. Provide technical support during independent Government testing concurrent with and/or subsequent to installation and evaluation.

##### **4.1.1 Deliverable:**

See following Table

##### **4.1.2 Schedule:**

See following Table

<b>DELIVERABLE</b>	<b>DUE DATE</b>	<b>DESCRIPTION</b>
Program Management Plan (PMP)	Preliminary six (6) weeks after award	Provided in contractor format, in electronic form. Must include elements identified in; (a) section 2.1 and subsections.
Meeting Minutes, Conference presentation materials, etc.	As required	Provided in contractor format, in electronic form. Must include elements identified in; (a) section 2.3 and subsections.
Contractor's Configuration Management Plan		Provided in contractor format, in electronic form. Must include elements identified in; (a) section 2.4 and subsections.
Software Test Plan (TP)		Provided in contractor format, in electronic form. Must include elements identified in; (a) section 2.7.2.
System Integration/Qualification Test Procedure (SIT)		Provided in contractor format, in electronic form. Must include elements identified in; (a) section 2.5.4.
Software Development Plan (SDP)		Provided in contractor format, in electronic form. Must include elements identified in; (a) section 2.7.1
Software Architecture Document		Provided in contractor format, in electronic form. Must include elements identified in; (a) section 2.7.7.
Software Version Description (SVD)	On or before 15 Nov 2004	Provided in contractor format, in electronic form. Must include elements identified in; (a) section 2.7.5.
Software User Documentation	On or before 15 Nov 2004	Provided in contractor format, in electronic form. Must include elements identified in; (a) section 2.7.6.
SNADIS Version 1.0 computer software	On or before 15 Nov 2004	Provided in contractor format, in electronic form, must include in addition to features of the initial Prototype the elements determined via the SNADIS Requirements Management Process (see Reference B).

DELIVERABLE	DUE DATE	DESCRIPTION
SNADIS Version 2.0 computer software	On or before 15 Nov 2004	Provided in contractor format, in electronic form, must include in addition to features of the initial Prototype the elements determined via the SNADIS Requirements Management Process (see Reference B).
Install and evaluate SNADIS module Versions at selected locations	Upon completion of SNADIS prototype and before 31 JAN 2005	a. Install SNADIS at COMSUBPAC Pearl Harbor, HI b. Install SNADIS at SUBSCHOOL Groton, CT c. Install SNADIS at NSWC Carderock, MD d. Install SNADIS at NUWC Division Keyport, WA e. Install SNADIS on selected SUBPAC submarines (six for estimating purposes) f. Install SNADIS on selected SUBLANT submarines (six for estimating purposes)

#### **4.2 TASK B: (OPTION SNADIS)**

Task B will consist of the development of additional SNADIS version modules prioritized and defined by the Fleet.

#### **4.3 TASK C: (OPTION SNADIS)**

Task C will consist of the development of additional SNADIS version modules prioritized and defined by the Fleet.

#### **4.4 TASK D: (OPTION SNADIS)**

Task D will consist of the development of additional SNADIS version modules prioritized and defined by the Fleet.

#### **4.5 TASK E: (OPTION SNADIS)**

Task B will consist of the development of additional SNADIS version modules prioritized and defined by the Fleet.

#### **4.6 TASK F: (OPTION SNADIS)**

Task C will consist of the development of additional SNADIS version modules prioritized and defined by the Fleet.

#### **4.7 TASK G: (OPTION SNADIS)**

Task D will consist of the development of additional SNADIS version modules prioritized and defined by the Fleet.

### **5 PROGRESS REPORTS:**

Provided monthly in contractor format, in electronic form: Must include the following elements: (a) Variance analysis; (b) Estimate at Completion (EAC); (c) Cost summary; (d) Schedule summary; (e) Milestone report (Progress made on each and work planned); (f) Event Report (work accomplished); (g) Problems Encountered; (h) and total funds expended.

### **6 GOVERNMENT FURNISHED PROPERTY AND INFORMATION:**

#### **6.1.1 Government Furnished Equipment/Material.**

The Government will notify the contractor of the availability of Government Furnished Equipment (GFE/GFM). Items will be provided to the contractor within 60 days of receipt of contractor's written request to the contracting officer. Proposals shall list required delivery date of GFE/GFM to meet proposed delivery schedules. The contractor shall provide for accountability, security and storage for the GFE/GFM provided. The contractor shall inspect and inventory all GFE/GFM received and identify and report any discrepancies/deficiencies within 10 days of receipt. The contractor shall provide a written request for disposition instructions for any items received which are inoperable or incorrect. The Government will forward an accountability agreement to the contractor for signature on an annual basis. The Management Control Activity, is the control and coordination point for all GFE/GFM.

#### **6.1.2 Government Furnished Information.**

The Government will furnish the Government Furnished Information (GFI) identified in the contract upon written request from the contractor to the contracting officer. The contractor shall notify the Government of any deficiencies in the GFI received.

### **7 QUALITY ASSURANCE REQUIREMENTS:**

#### **7.1.1 Quality Management System.**

The contractor's quality management system shall ensure product conformation to contractual requirements. The contractor shall have implemented, documented, and have previously demonstrated the ability to maintain the quality management system to be used on the contract. The contractor shall make available all quality management documentation for the Government to review upon request.

## **8 SECURITY:**

SNADIS will operate at the unclassified through Secret levels and will contain multiple levels of access control to ensure information is not compromised. SNADIS will receive or process information according to guidelines set forth by DoD and Components, including the protection of data aggregation at a higher level as necessary. The SNADIS System Security Accreditation Plan will be addressed with each Version upgrade.

### **8.1 Security Classification of Equipment, Components, Spaces and Documents:**

The Equipment, Space or Document is classified and subject to the applicable provisions of DOD 5220.22M, Industrial Security Manual; SECNAVINST 5530.36, Information Security Program Regulation (17 Mar 99); SECNAVINST 5530.30A, Personnel Security Program; NUWCINST P5510.2, The Information and Personnel Security Program Manual; the NUWC Physical Security Manual P5530.14; and the NUWC Information System Security Program Manual, NUWCPTINST 5239.2 (1 Mar 95). Contractor personnel supporting this task order will require a minimum security clearance level of classified.

**8.1.1 Spaces:** Classified

**8.1.2 Equipment:** Classified

**8.1.3 Documents:** Classified

## **9 NOTES:**

**9.1 All technical clarifications shall be provided by the COR.**

### **9.2 Travel Requirements:**

Video Teleconferencing (VTC) will be used to the greatest extent possible although many site visits to Washington DC, field activities, and operational commands will be required. Estimates for travel are as follows:

Initial Contract period award to Jan 31 2005

From Contractor/Subcontractor Facilities to:

<b>Destination</b>	<b>Persons</b>	<b>Trips</b>	<b>Days</b>	<b>Task(s)</b>
Washington, DC	2	13	4	A
San Diego, CA	2	3	5	A
Honolulu, HI	2	2	7	A
Groton, CT	3	3	4	A
Guam, USA	2	1	10	A
Keyport, WA	3	2	5	A
Norfolk, VA	2	4	4	A
Kings Bay, GA	2	1	4	A
Newport, RI	2	1	4	A
Hampton, VA	2	6	4	A

CY 2005 Contract period Feb 1 2005 to Jan 31 2006

From Contractor/Subcontractor Facilities to:

<b>Destination</b>	<b>Persons</b>	<b>Trips</b>	<b>Days</b>	<b>Task(s)</b>
Washington, DC	2	13	4	B
San Diego, CA	2	3	5	B
Honolulu, HI	2	2	7	B
Groton, CT	3	3	4	B
Guam, USA	2	1	10	B
Keyport, WA	3	2	5	B
Norfolk, VA	2	4	4	B
Kings Bay, GA	2	1	4	B
Newport, RI	2	1	4	B
Hampton, VA	2	6	4	B

CY 2006 Contract period Feb 1 2006 to Jan 31 2007

From Contractor/Subcontractor Facilities to:

Destination	Persons	Trips	Days	Task(s)
Washington, DC	2	6	4	C
San Diego, CA	2	2	5	C
Honolulu, HI	2	1	7	C
Groton, CT	3	2	4	C
Guam, USA	2	1	10	C
Keyport, WA	3	1	5	C
Norfolk, VA	2	2	4	C
Kings Bay, GA	2	1	4	C
Newport, RI	2	1	4	C
Hampton, VA	2	3	4	C

CY 2007 Contract period Feb 1 2007 to Jan 31 2008

From Contractor/Subcontractor Facilities to:

Destination	Persons	Trips	Days	Task(s)
Washington, DC	2	6	4	D
San Diego, CA	2	2	5	D
Honolulu, HI	2	1	7	D
Groton, CT	3	3	4	D
Guam, USA	2	1	10	D
Keyport, WA	3	1	5	D
Norfolk, VA	2	2	4	D
Kings Bay, GA	2	1	4	D
Newport, RI	2	1	4	D
Hampton, VA	2	3	4	D

### 9.3 Overtime:

Overtime is not anticipated nor authorized at this time. Any overtime for task order performance must be authorized, in advance, by the Ordering Officer.

### 9.4 Organizational Conflict Of Interest

(a) "Organizational Conflict of Interest" means that because of other activities or relationships with other persons, a person is unable or potentially unable to render impartial assistance or advice to the Government, or the person's objectivity in performing the contract work is or might be otherwise impaired, or a person has an unfair competitive advantage. "Person" as used herein includes Corporations, Partnerships, Joint Ventures, and other business enterprises.

(b) The Contractor warrants that to the best of its knowledge and belief, and except as otherwise set forth in the contract, the Contractor does not have any organizational conflict of interest(s) as defined in paragraph (a).

(c) (1) The Contractor agrees that it shall not release, disclose, or use in any way that would permit or result in disclosure to any party outside the Government any information generated or derived during or as a result of performance of this contract. This prohibition shall expire after a period of three years after completion of performance of this contract.

(2) The prohibitions contained in subparagraph (d)(1) shall apply with equal force to any affiliate of the Contractor, any subcontractor, consultant, or employee of the Contractor, any joint venture involving the Contractor, any entity into or with which it may merge or affiliate, or any successor or assign of the Contractor. The terms of paragraph (d) of this Special Contract Requirement relating to notification shall apply to any release of information in contravention of this paragraph (c).

(d) The Contractor agrees that, if after award, it discovers an actual or potential organizational conflict of interest; it shall make immediate and full disclosure in writing to the Contracting Officer. The notification shall include a description of the actual or potential organizational conflict of interest, a description of the action which the Contractor has taken or proposes to take to avoid, mitigate, or neutralize the conflict, and any other relevant information that would assist the Contracting Officer in making a determination on this matter. Notwithstanding this notification, the Government may terminate the contract for the convenience of the Government if determined to be in the best interest of the Government.

(e) Notwithstanding paragraph (d) above, if the Contractor was aware, or should have been aware, of an organizational conflict of interest prior to the award of this contract or becomes, or should become, aware of an organizational conflict of interest after award of this contract and does not make an immediate and full disclosure in writing to the Contracting Officer, the Government may terminate this contract for default.

- (f) If the Contractor takes any action prohibited by this requirement or fails to take action required by this requirement, the Government may terminate this contract for default.
- (g) The Contracting Officer's decision as to the existence or nonexistence of an actual or potential organizational conflict of interest shall be final.
- (h) Nothing in this requirement is intended to prohibit or preclude the Contractor from marketing or selling to the United States Government its product lines in existence on the effective date of this contract; nor, shall this requirement preclude the Contractor from participating in any research and development or delivering any design development model or prototype of any such equipment. Additionally, sale of catalog or standard commercial items are exempt from this requirement.
- (i) The Contractor shall promptly notify the Contracting Officer, in writing, if it has been tasked to evaluate or advise the Government concerning its own products or activities or those of a competitor in order to ensure proper safeguards exist to guarantee objectivity and to protect the Government's interest.
- (j) The Contractor shall include this requirement in subcontracts of any tier which involve access to information or situations/conditions covered by the preceding paragraphs, substituting "subcontractor" for "contractor" where appropriate.
- (k) The rights and remedies described herein shall not be exclusive and are in addition to other rights and remedies provided by law or elsewhere included in this contract.
- (l) Compliance with this requirement is a material requirement of this contract.

## 9.5 Data Rights

### Data Rights

Defense Federal Acquisition Regulation Supplement (DFARS) 52.227-7013(a)(3) (June 1995) states, "Computer software means computer programs, source code, source code listings, design details, algorithms, processes, flowcharts, formulae, and related material that would enable the software to be reproduced, recreated, or recompiled." Allocation of rights to the intellectual property developed in the performance of a contract is primarily determined by ascertaining which party funded the development. Table 2 reveals the relationship between the allocation of rights and the source of the funding.

	<b>Noncommercial Technical Data</b>	<b>Noncommercial Computer Software &amp; Documentation</b>	<b>Technical Data - Commercial Items</b>	<b>Commercial Computer Software</b>
Developed Exclusively at Private Expense	Limited Rights	Restricted Rights (software) & Unlimited Rights (documentation)	Limited Rights	Customary License
Developed Exclusively at Government Expense	Unlimited Rights	Unlimited Rights	N/A	N/A
Mixed Funding	Government Purpose Rights	Government Purpose Rights	N/A	N/A

**Table 2: Allocation of Rights and the Source of the Funding.**

### **Attachment 1 - Glossary**

ATIS	Advanced Technical Information System
CM	Configuration Management
COTS	Commercial Off The Shelf
CSTI	Computer Software Traceability Item
DS	Distance Support
EAC	Estimate At Completion
GFE	Government Furnished Equipment
GFI	Government Furnished Information
GFM	Government Furnished Material
HSI	Human Systems Integration
NAVSEA 07L	Undersea Warfare
NDI	Non-Developmental Item
NSWC	Naval Surface Warfare Center
NTCSS	Navy Tactical Support System
NUWC	Naval Undersea Warfare Center
OPNAV	
PCD	Performance Centered Design
PM	Program Manager
SE	Systems Engineer
SIPRNET	Secret Internet Protocol Router Network
SOA	Service Oriented Architecture
SSDD	System/Subsystem Design Description
SSET	Software Support Environment Tool
SSO	Single Sign-On
STrP	Software Transition Plan
SUBWEB	The Submarine Internet
SUM	Software Users Manual
SVD	Software Version Description
TA	Technical Assistant
TDKM	Technical Data Knowledge Management
TI	Traceability Item
TOC	Total Ownership Cost
TP	Test Plan
TRAIN	Training and Analysis Information Network
VCRM	Verification Cross Reference Matrix
VTC	Video Teleconferencing
Web-ATIS	Web-enabled Advanced Technical Information Support System



### Attachment 2 - SNADIS Requirements Identified by the Fleet

No.	SC	FA	P	DESCRIPTION OF SNADIS REQUIREMENTS
1		T		Ship's training plan
1.1	P	T	1	Develop training plan
1.1.1	C	T		Identify training, operations, maintenance, logistics systems training requirements and goals
1.1.2	S	ALL		Get ship maintenance and operational schedules Note: the cost of an integrated ship scheduling tool is captured in this cost.
1.1.3	A	CM		Get internal assessment and inspection corrective action items requiring training (obtain electronically as sources of results become electronic)
1.1.4	R	T		Review training records of completed training
1.2	P	T	1	Select measures to evaluate if training goals have been achieved
1.2.1	C	T		Get performance attributes associated with training goal
1.2.2	B	T		Link various lectures, drills, evolutions, and exams to goals
1.3	P	T	1	Draft schedule of training lectures for accomplishing training plan goals
1.3.1	S	T		Draft training plan lecture schedule (including LRTP and SRTP)
1.3.2	W	T		Assign lecture responsibility to personnel
1.3.2.1	R	T		Training plan available for access to goals for lecture preparation
1.3.2.2	C	T		Make training content available to assist in lecture preparation. Make training material capable of being electronically linked where electronic reference material exists.
1.3.2.3	W	T		Establish linkage between training plan and Microsoft Outlook to support notification to assigned monitors, lecturers and attendees.
1.4	P	T	2	Draft training plan exam schedule
1.4.1	W	T		Assign exam responsibility to personnel
1.4.1.1	R	T		Training plan is available to access goals for exam preparation
1.4.1.3	C	T		Make exam bank available for exam preparation
1.4.1.2	R	T		Link from exam results to individual training and qualification folders.
1.5	P	T	2	Schedule assessment (observe drill/evolutions) of training goals using performance metrics determined previously
1.5.1	W	T		Assign assessment responsibility to personnel
1.6	P	T	1	Schedule assessment of overall training program periodically
1.6.1	A	T		Assess the achievement of the training plan to achieve command and department goals over the period under consideration.
1.6.2	A	T		Assess planned training versus actual training conducted to include: has the command program been responsive to needs and is scheduled training being deferred without justification.
1.7	P	T	3	Routing and review of training related reports/forms
1.7.1	W	T		Routing and review of training plan (LRTP and SRTP)
1.7.2	W	T		Routing and review of training critique forms (lectures, seminars, and evolutions)
1.7.3	W	T		Routing and review of exam results
1.8	P	T	1	Input approved training plan into ship's schedule
1.8.1	S	T		Input approved training plan into ship's schedule
1.9	P	T	1	Modify training plan as necessary
1.9.1	S	ALL		Changes to ship's schedule triggers review of plan
1.9.2	A	CM		Assessment corrective action triggers review of plan

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1.9.3	A	T		Exam results trigger review of plan
1.9.4	W	T		Training personnel review and start training planning process again as necessary
1.10	P	T	2	Update training corrective actions from assessments as necessary
1.10.1	A	T		Based on successful assessment, clear the appropriate corrective action from the assessment system
1.11	P	T	1	Report templates for training plan records
1.11.1	R	T		Report of records associated with processes as outlined above
1.11.2	R	T	1	NAVSEA 08 Bowman letter (encompasses all engineering records)
1.11.2.1	R	T		Link to NTMPS for school data to be included in NAVSEA 08 letter and also in individual's training and qualification folder.
1.12	B	T	2	Drill and Evolution Guide Development
1.12.1	B	T		Create drill and evolution guides that meet the format requirements of the SRM Annex H
1.12.2	W	T		Route drill and evolution guides through the chain of command for approval.
1.12.3	B	T		Store approved drill guides for future use
1.12.4	B	T		Retrieve drill guides for use as needed
1.12.5	W	T		Route drill authorization forms similar to Annex I in the SRM to the chain of command for drill approval.
1.12.6	B	T		Document comments from drills and evolutions in form similar to Annex I in the SRM
1.12.7	W	T		Route critique comments of drills and evolutions via the chain of command on form similar to Annex I in the SRM
1.13	R	T	1	Documentation of Completed Training
1.13.1	R	T		Records of completed lectures will be maintained in a format similar to the SRTP
1.13.2	R	T		Drill records will be maintained in a format similar to Annex G in the SRM.
1.13.3	R	T		Records will be maintained of one-time training requirements completed that allows easy verification of the training.
2		CM		Command monitor tracking system
2.1	P	CM	1	Using the assessment system component, the following are specific assessment templates within the command monitor tracking system that need to be customized. The assessment system will manage any deficiencies identified during any command monitoring evolution, will allow identification of root causes of the deficiency.
2.1.1	A	CM		Monitor watch
2.1.2	A	CM		RADCON audits and surveillance
2.1.3	A	CM		Preventive maintenance system (PMS) spot checks
2.1.4	A	CM		Quality assurance audits
2.1.5	A	CM		Reactor controls preventive maintenance spot checks
2.1.6	A	CM		TLD reader spot checks
2.1.7	A	CM		Check chemistry
2.1.8	A	CM		Medical audits
2.1.9	A	CM		RAD Health audits
2.1.10	A	CM		Dosimetry processing surveillance
2.1.11	A	CM		Navigation evaluation
2.1.13	A	CM		Training Program
2.1.14	A	CM		Flexibility designed in that allows the ship the ability to add new areas to monitor, audit and assess as the CO deems appropriate.
2.2	P	CM	1	Include interfaces to the workflow system for assignment of corrective actions to appropriate people/systems (i.e., training deficiency would go to the training plan module) and update once the corrective action is complete.

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2.2.1	W	CM		Monitor watch
2.2.2	W	CM		RADCON audits and surveillance
2.2.3	W	CM		Preventative maintenance system (PMS) spot checks
2.2.4	W	CM		Quality assurance audits
2.2.5	W	CM		TLD reader spot checks
2.2.6	W	CM		Check chemistry
2.2.7	W	CM		Medical audits
2.2.8	W	CM		RAD Health audits
2.2.9	W	CM		Dosimetry processing surveillance
2.2.10	W	CM		Flexibility designed in that allows the ship the ability to add new areas to monitor, audit, and asses as the CO deems appropriate.
2.3	P	CM	3	The assessment component can conduct an automated records review if the records are electronic
2.3.1	R	ALL		Monitor watch
2.3.2	R	M		RADCON audits and surveillance
2.3.3	R	M		Preventative maintenance system (PMS) spot checks
2.3.4	R	M		Quality assurance audits
2.3.5	R	M		TLD reader spot checks
2.3.6	R	M		Check chemistry
2.3.7	R	P		Medical audits
2.3.8	R	P		RAD Health audits
2.3.9	R	M		Dosimetry processing surveillance
2.3.10	R	M		TLD reader spot checks
2.4			1	Command Monitor Tracking System will incorporate the following features:
2.4.1	B	CM	1	Capture all actions items in the command in the action tracking system. These items may generate from either deficiencies or correspondence that indicates action is needed and therefore should be tracked. Possible sources of action items will include:
2.4.1.1	B	CM		External inspections
2.4.1.2	B	CM		External monitoring
2.4.1.3	B	CM		Internal deficiency Identification
2.4.1.4	B	CM		Non-deficiency action for navy messages
2.4.1.5	B	CM		Non-deficiency action for other external written correspondence
2.4.1.6	B	CM		Non-deficiency action for verbal direction
2.4.1.7	B	CM		Non-deficiency action for e-mail
2.4.2	B	CM		Action items that derived from deficiencies should identify the deficiency that drove the action item.
2.4.3	B	CM		Action can be created by anyone in the command or can be limited to certain personnel based on business rules established by the command
2.4.4	W	CM		Actions can be assigned to the appropriate action individual if that individual is known.
2.4.5	W	CM		If the originator of the action item does not know who the action individual should be, then the action item can be screened to the appropriate Department Head for further screening to the appropriate personnel.
2.4.6	W	CM		The system shall allow for easy redirecting of the action item if the item is incorrectly assigned.
2.4.7	B	CM		Provide an option to indicate when deficiencies/action items are considered significant. This will allow CO/XO/Dept. Heads to conduct a report query to easily see those category items

2.4.8	B	CM		Provide an option to indicate a priority to the action items that are not considered significant so that these other items can be given some category of urgency/importance. By this break down of urgency categories, reports can be created for “Significant Action Items”, “High Priority Action Items”, “Medium Priority Action Items”, and “Low Priority Action Items”.
2.4.9	R	CM		Report options should allow calling up more than one category of action items.
2.4.10	W	CM		The originator of an action item should be able to send information about the action item to the chain of command in parallel with the assignment to the action individual (or appropriate department head) for items worthy of immediate notification to the chain of command.
2.4.11	R	CM		The system shall have the capability to call up items that are complete as another category and sub-categorize items as to whether they were completed by the assigned due date or completed late (and how late).
2.4.12	R	CM		The system should allow a report to be generated based on a specified period of time that the reviewer desires to analyze.
2.4.13	B	CM		The system should allow for identifying what corrective action is expected. This shall be an optional field for entry as expected corrective action will not always be entered. After corrective action is completed, the system should allow easy comparison of expected corrective action versus actual corrective action taken.
2.4.14	B	CM		The system should allow the option to specify who must declare the action is verified complete as in some circumstances this level of control will be desired. It should also allow action items to be verified without specifying initially who must verify. This will allow many items to be verified by an appropriate person without requiring micro-management.
2.4.15	B	CM		In each case, the ability to indicate who verifies an action item complete shall be available.
2.4.16	B	CM		The system shall be set up to prompt an evaluation as to whether there are any root causes associated with a deficiency and what action has been taken to address the root cause of the problem.
2.4.17	B	CM		The system shall identify if there are any long-term lessons learned that should be recorded in a lessons learned database. This database should be easily searchable and the info easily retrieved
2.4.18	R	CM		As deficiencies are identified they should be able to be tagged with a "General Category" title. This will allow for creating reports based on those categories. Typical categories would be: Training, QA, Retention, Reactor Controls Maintenance, RADCON, etc
2.4.19	B	CM		The system shall allow the user the flexibility to add new “General Categories”.
2.4.20	R	CM		Metrics shall be able to be displayed through the reports available in the system. For example, one would be able to look at “High Priority” items in the category of QA that have been assigned to personnel in Machinery Division between a start date and stop date and see how many were identified and how many were completed on time and compare that performance between four different quarters in time.
2.5	S	CM	2	Command Monitor Scheduling Feature
2.5.1	B	CM		Track the assignment of scheduled items in various audit and surveillance programs, including due date, person assigned, date actually accomplished, and any applicable references.
2.5.2	W	CM		Inform those assigned using electronic workflow.
2.5.3	W	CM		Identify items that are late and send e-mails to the individuals and their supervisors.
2.5.4	S	CM		Provide the functionality to reschedule items that are not completed as scheduled.
3		I		Inspections
3.1	P	I	1	Using the assessment system component, the following are specific assessment templates for inspections that are carried out by external commands using a standardized method. For the inspection team, the system will allow the execution of the inspection, production of a report, and storage of the results for follow-on analysis.
3.1.1	A	I		Tactical Readiness Exam
3.1.2	A	I		POMCERT

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3.1.3	A	I		Navigation evaluation
3.1.4	A	I		Basic Ship Assessment
3.1.5	A	I		Attack center evaluation
3.2	P	I	1	Include interfaces to the command monitor tracking system and access workflow component for assignment of corrective actions to appropriate people/systems (i.e., training deficiency would go to the training plan module) and update once the corrective action is complete.
3.2.1	W	CM		Tactical Readiness Exam
3.2.2	W	CM		POMCERT
3.2.3	W	CM		Navigation evaluation
3.2.4	W	CM		Basic Ship Assessment
3.2.5	W	CM		Attack center evaluation
3.3	P	I	2	Conduct analysis on inspection results to identify areas that require force-wide improvement and refinement of inspection analysis templates
3.3.1	A	I		Analysis capability for the inspection results repository
3.3.2	A	I		Management tool for taking inputs and modifying the inspection analysis templates
4		Q		Professional continuum
4.1	P	Q	2	Develop and manage individual qualification plans
4.1.1	R	Q		Electronic training jacket for sailor/officer
4.1.2	R	Q		Experience records
4.1.3	C	Q		Qualification requirements and standards
4.1.4	S	ALL		Ship's schedule
4.1.5	W	Q		Route, review, approve qualification plan
4.1.6	W	Q		Assign qualification plan to person qualifying
4.1.7	W	Q		Based on qualification milestones, monitor qualification progress by chain of command
4.1.8	R	Q		Electronic qualifications cards that incorporate electronic signatures
4.1.9	R	Q		Maintain a Qualification Petty Officer List for those authorized to sign qualification cards
4.1.10	R	Q		Link from qualification exam results and qualification cards to individual training and qualification folders.
4.1.11	R	Q		Develop and maintain a qualification delinquent list.
4.1.12	W	Q		Provide for electronic routing of oral exam interview sheets.
4.1.13	R	Q		Link between Watch Qualification Book and NAVSEA 08 Admiral's Letter Training Enclosure.
4.2	P	Q	2	Provide knowledge resources for qualification
4.2.1	C	T		Make training content available specific for qualification knowledge factors
4.2.2	C	T		Link qualification card to electronic training reference material.
4.2.2	C	T		Exam bank for developing qualification tests; include questions and answer keys.
4.3	P	Q	2	Maintain qualification proficiency
4.3.1	R	Q		Maintain qualification watch stander list (QWSL)
4.3.2	W	Q		QWSL triggers notification for required proficiency watches
4.3.3	W	Q		Notify supervisor and watch bill coordinator when proficiency is not maintained.
4.3.4	W	Q		Link to Watch Bill and Watch, Quarter and Station Bill from QWSL that allows entering names only if properly qualified and proficient.
4.3.5	W	Q		Notification system to alert as requalification dates approach.

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4.3.6	W	Q		Automated update to Watch Qualification Book when requalification dates exceeded.
4.4	P	O		Officer and sailor experience
4.4.1	R	O	1	Officer experience log
4.4.2	R	O	2	Officer experience log integrated with electronic deck log
5		PM		Personnel medical administration
5.1	P	PM	2	Tracking of submarine personnel and visitors to ensure proper medical screening for radiation exposure
5.1.1	R	PM		Personnel medical records available
5.1.2	W	PM		Proper medical screening, training, and issue of TLD personnel
5.1.3	W	PM		Tracking of personnel that will transfer and need internal monitoring
5.1.4	R	PM		Document non-radiation worker statements
5.1.5	A	CM		Audit records of occupational radiation exposure
5.1.6	W	PM		Track personnel with >1.5 REM exposure
5.1.7	W	PA		Check-in and out procedures meeting RAD health requirements
5.1.8	W	PM		SAMS and TMIPS interface for routing, review and approval
5.1.9	R	PM		Man-REM planning/evaluation work sheets
5.1.10	R	PM		NAVMED area monitoring devices
5.1.11	R	PM		Bar code tracking of LiF TLDs
5.1.12	W	PM		Interface with Naval Dosimetry Center for reporting
5.1.13	P	PM		Exposure record cards management
5.1.13.1	R	PM		Electronic exposure cards
5.1.13.2	W	PM		Routing and review of exposure cards
5.1.14	R	PM		Monthly CaF TLD report to include exposure cards and TLD reader check records
5.1.15	R	PM		Track training requirements that must be met for TLD issue.
5.1.16	R	PM		Create a standard form to define assigned duties of visitors to allow for proper medical screening, training and TLD issue.
5.1.17	W	PM		Form to inform ELTs of those authorized to be issued a TLD
5.1.18	B	PM		Establish Local Control Level system
5.1.19	W	PM		Tracking of personnel that will transfer and need termination medical exams
5.2	P	PM	3	Tracking of medical exams
5.2.1	W	PM		Tracking of medical exams
6		O		Operations support
6.1		O		NAV/OPS planning
6.1.1	P	O	3	ESM search plan development
6.1.1.1	C	O		Identify ESM search plan requirements
6.1.1.2	S	O		Get ship detailed operations schedules
6.1.1.3	W	O		Route, review and approve ESM search plan
6.1.2	P	O	3	Preparation of night orders
6.1.2.1	S	O		Get ship detailed operations and maintenance schedules
6.1.2.2	W	O		Route, review and approve night orders
6.1.3	P	O	3	Operational preparation and tracking
6.1.3.1	R	O		Electronic navigation and comms check-off lists (pre-underway, piloting preps, and planned operations)

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6.1.3.2	W	O		Routing and review of navigation and comms check-off lists
6.1.4	P	O	3	Navigation administration management
6.1.4.1	C	O		Filing of NAV/OPS related information (NAVAREA/HYDORLANT(PAC) messages, NTM, OPORDS, OPSKEDS, SUBNOTES, and other applicable publications)
6.1.4.2	R	O		All navigation related items are up to date by verifying with the appropriate information source (e.g., charts)
6.1.4.2.1	W	O		Electronic chart and publication requisition
6.1.5	P	O		Automated log keeping
6.1.5.1	R	O	3	Electronic topside log
6.1.5.2	R	O	3	Electronic radar log
6.1.5.3	R	O	2	Electronic deck log
6.1.5.4	R	O	3	Electronic voice log
6.2	P	O	3	Status reporting
6.2.1.1	R	O		Radio
6.2.1.2	R	O		Ship's navigation
6.2.1.3	R	O		Sonar
6.2.1.4	R	O		Weapons
6.2.1.4.1	R	O		Strategic Weapons
6.2.1.4.2	R	O		Tactical Weapons
6.2.1.5	R	O		OOD
6.2.1.6	W	O		Routing and review of reports
6.2.1.7	R	O		Ops/Prevention of Mutual Interference
6.2.1.8	R	O		NAV Center Status (SSBN)
7		M		Maintenance support
7.1	P	M	2	Managing maintenance records
7.1.1	R	M		Out of commission log
7.1.2	R	M		Instrument log
7.1.3	R	M		Work authorization log
7.1.4	R	M		Engineering Fuel Oil and Water log
7.1.5	R	M		Engineering daily report
7.1.6	R	M		Tag out log
7.1.7	R	M		URO records
7.1.8	R	M		PMS records
7.1.9	R	M		Flex hose records
7.1.10	R	M		Calibration records
7.1.11	W	M		Routing and review of log status and records
7.1.12	R	M		Trouble Call Request log
7.1.13	R	M		Equipment Status Log
7.2	P	M	1	Maintenance plans
7.2.1	C	M		Identify maintenance requirements
7.2.2	S	ALL		Get ship maintenance and operational schedules Note: assumed that a scheduling component exists and this is a customization cost.
7.2.3	A	CM		Get internal CM corrective action items requiring maintenance

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7.2.4	R	M		Review maintenance deficiency logs
7.2.5	R	M		Review maintenance records
7.3	P	M	3	Routing and review of maintenance plan
7.3.1	W	M		Routing and review of maintenance plan
7.4	P	M	1	Input approved maintenance plan into ship's schedule
7.4.1	S	M		Input approved maintenance plan into ship's schedule
7.5	P	M	1	Modify maintenance plan as necessary
7.5.1	S	ALL		Changes to ship's schedule triggers review of plan
7.5.2	A	CM		Assessment corrective action triggers review of plan
7.5.3	W	M		Maintenance personnel review and start maintenance planning process again as necessary
7.6	P	M	2	Update maintenance corrective actions from assessments as necessary
7.6.1	A	CM		Based on successful assessment, clear the appropriate corrective action from the assessment system
7.7	P	M	2	Report templates for maintenance records
7.7.1	R	M		Report of records associated with processes as outlined above
8		KM		Knowledge Management
8.1	B	KM	1	Knowledge sharing
8.1.1	C	KM		Fleet lessons learned: files (e.g., messages) that is stored in a simple file structure onboard the ship
8.1.2	R	KM		Fleet lessons learned and system matter expert applications: integrated KM application that is highly searchable and customizable to shipboard processes. Implies a replication scheme so all information can be accessed when the ship is not connected to an external network
8.1.3	C	KM		Community of practice collaboration forums and best practices
8.1.4	C	KM		Establish the capability to screen messages to only those that are deemed relevant.
9		SR		Ship's routine support
9.1	B	SR	2	Department, divisional, personal access to content/applications
9.1.1	C	SR		Shared folder access to SNADIS/NTDPS resources
9.1.2	C	SR		Web portal access to all SNADIS/NTDPS resources
9.2	B	SR	2	Maintenance of ship routine records
9.2.1	R	SR		Sailing list
9.2.2	S	All		Plan of day and week
9.2.3	R	SR		Reports record keeping
9.2.4	R	SR		Ship's Directives
9.2.5	R	SR		Instructions and Notices
9.2.6	R	PA		Alpha List
9.3	P	SR	2	Automate development and maintenance of ship's berthing list
9.3.1	R	SR		Sailing list input
9.3.2	R	SR		Watch bill
9.3.3	R	SR		Current berthing assignments
9.4	P	SR	2	Automate development and maintenance of ship's watch bills
9.4.1	R	T		Qualified watch stander list
9.4.2	R	SR		Sailing list
9.4.3	R	O		Watch bill form



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9.4.4	R	O		Watch bill rule sets
9.5	P	SR	3	Distribution of sailor e-mail
9.5.1	W	SR		Workflow to screen e-mail (if applicable) to sailor
9.6	P	SR	3	Miscellaneous SR support
9.6.1	R	SR		CO's suggestion box
9.6.2	R	SR		Daily menus
9.6.3	R	SR		Daily Readiness Report: Sensors, Strategic Weapons, Tactical Systems, Operations and Tactics
9.7	P	O		Equipment Status
9.7.1	R	O		Atmosphere Status Log

### Attachment 3 - SNADIS FY04 Deliverables

#### Fleet Prioritized SNADIS Software Modules for FY04

No.	SC	FA	Description
1.1	P	T	Develop training plan
1.2	P	T	Select measures to evaluate if training goals have been achieved
1.3	P	T	Draft schedule of training lectures for accomplishing training plan goals
1.7	P	T	Input approved training plan into ship's schedule
1.8	P	T	Modify training plan as necessary
2.1	P	CM	Using the assessment system component, the following are specific assessment templates within the command monitor tracking system that need to be customized. The assessment system will manage any deficiencies identified during any command monitoring evolution, will allow identification of root causes of the deficiency.
2.2	P	CM	Include interfaces to the workflow system for assignment of corrective actions to appropriate people/systems (i.e., training deficiency would go to the training plan module) and update once the corrective action is complete.
3.1	P	I	Using the assessment system component, the following are specific assessment templates for inspections that are carried out by external commands using a standardized method. For the inspection team, the system will allow the execution of the inspection, production of a report, and storage of the results for follow-on analysis.
3.2	P	I	Include interfaces to the command monitor tracking system and access workflow component for assignment of corrective actions to appropriate people/systems (i.e., training deficiency would go to the training plan module) and update once the corrective action is complete.
4.4.1	R	O	Officer experience log
7.2	P	M	Maintenance plans
7.4	P	M	Input approved maintenance plan into ship's schedule
7.5	P	M	Modify maintenance plan as necessary
8.1	B	KM	Knowledge sharing

SC = system component categories

B: business process,

R: records management,

P: primary.

FA= functional area categories

T: training,

CM: command monitoring,

I: inspections,

O: operations,

M: maintenance,

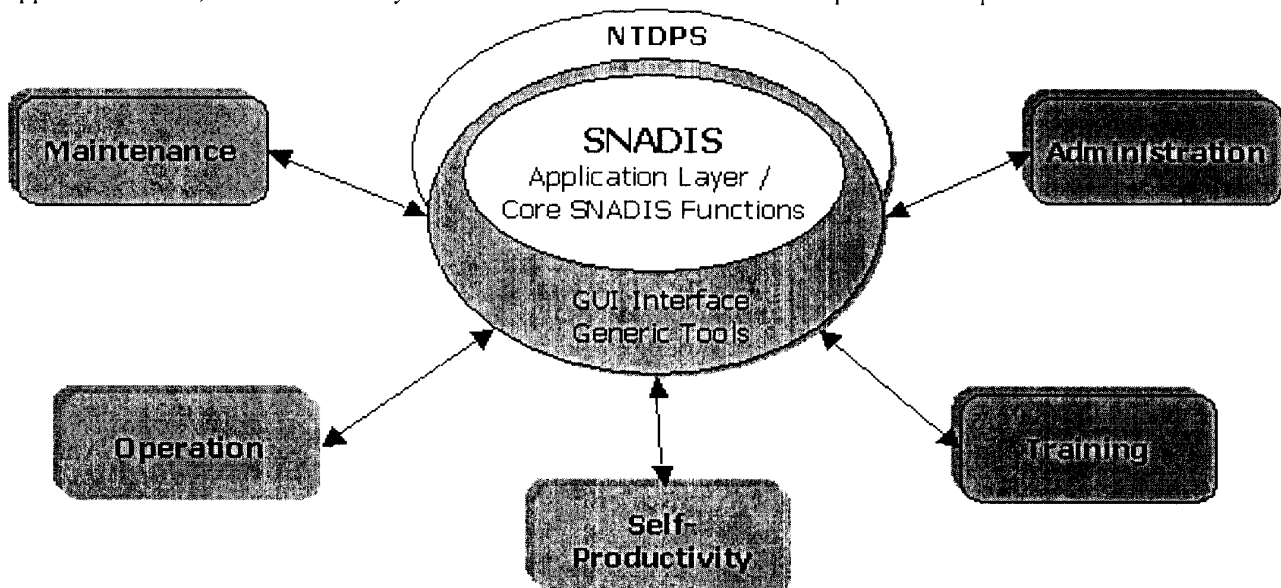
KM: knowledge management

## Attachment 4 - SNADIS Description

The Submarine Non-Tactical Application Delivery Interface System (SNADIS) development was initiated based on a request submitted to CNO (N77), in November 2001, from the Deputy, CNSF. In his letter he identified an immediate operational requirement for submarines for a single, common, force wide, web-based portal or system to access all network-based content and applications for performance of operational and administrative tasks. The letter specified that the information management application should be a Commercial Off The Shelf (COTS) based system. It should be available on the SIPRNET, and should include the ability to replicate structured data with shore servers.

The Deputy, CNSF requested funding support for this requirement and identified that this program is the key to immediate gains in submarine work efficiency. CNSF endorsed this request and stated that a solution should be identified as soon as possible so that this information management requirement can be achieved in a timely manner. NAVSEA 07L was assigned to establish a Program of Record to support these needs. A Program of Record was established with funding starting in FY-04 for SNADIS to meet the needs identified.

SNADIS will be an enterprise set of applications available to the Submarine Force for operational and administrative task support, including the necessary non-tactical applications, databases, and network infrastructure. SNADIS will provide the tools necessary to support knowledge management and improved efficiency on board the submarines, and will allow for information transmission back to the shore to Squadron, Group and TYCOM staffs, to the shore based Integrated Learning Environment (ILE) and to other organizations that need information maintained on board the submarines, such as material support commands, when connectivity can be established while at sea and/or upon return to port.

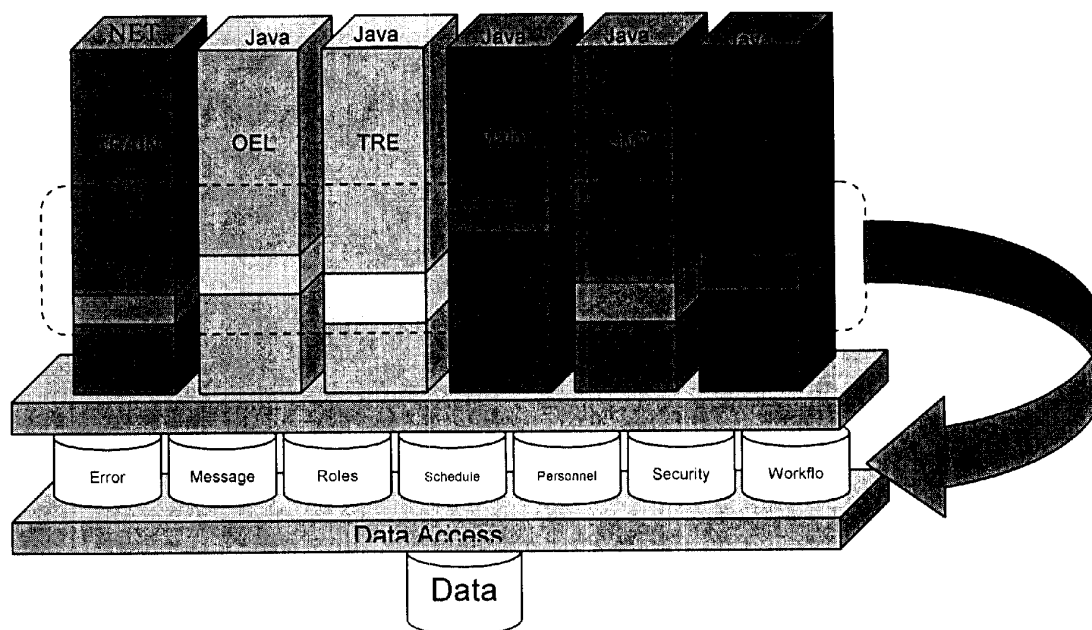


SNADIS will run on a Windows network and use a teaming of databases and applications. Master servers ashore provide for the needs of all shore users and provide an information warehouse for enterprise level applications and contain the master database(s). Any organization within the SIPRNET domain can interface with SNADIS to access information or provide electronic content to the Submarine Force if appropriate permissions for access have been granted. Classified information up to SECRET will be included within SNADIS. Each submarine connected to the system will have SNADIS loaded on a local server. The master server located ashore will periodically update master data to the submarine server and information/data from the submarine's server will periodically be sent to the master server ashore.

The SNADIS Requirements Description identifies specific problem areas that significantly degrade the ability of the submarine crews to efficiently and effectively organize and use information to operate and maintain their submarines. In addition, personnel turnover and reassignment leads to an inherent loss of technical knowledge which underscores the need for an enterprise-wide information resource that provides Sailors with a means to share their knowledge, find experts, and capture knowledge to maintain technical proficiency. Information management tools that focus on creating and fostering a continuous learning environment to support job performance are necessary to capture the intellectual capital of crews. These tools do not currently exist. The specific problem areas identified in the SNADIS Requirements Description are:

- Delivery of Technical Information is Inefficient
- Tasks Being Completed Manually
- Information is Unorganized and Difficult to Maintain
- Too Many Information Systems and Applications
- Poor Ability to Share Information and Communicate With Others

### SNADIS Notional Architecture Diagram



## PROPOSAL SUBMITTAL REQUIREMENTS

Offerors shall submit the following information with their offer:

**Technical:** On a separate sheet of paper, state whether the offer complies or does not comply with the specifications. Identify any “exceptions” to the specifications and state precisely how the offered supplies/services differ from the applicable specification paragraph(s). Failure to comply with this requirement may result in rejection of the offer.

In order to provide all necessary information for a comprehensive technical evaluation and price analysis thereof, your proposal shall be submitted as commercial product literature, which must provide enough information to determine operational parameters of the product or service in the format that the offeror uses in commercial sector bidding. A determination will be made through technical evaluation whether the product fails to meet, meets, or exceeds the Government’s performance requirements as set forth in the specifications. The commercial product literature should address the following areas:

**Technical Approach:** The technical approach will be evaluated on how well it supports the needs and objectives defined in the statement of work. Emphasis will be placed on the achievement of technical capabilities without risking timely accomplishment of project goals. Evaluation of the technical approach will include:

- 1) Describe the proposed approach to project implementation and execution, including a resume for the proposed Project Manager.
- 2) Provide a description of the quality of proposed on-site operational support. The description shall include resumes that include skill sets, educational background and relevant experience of the proposed personnel.
- 3) Constraints/Anticipated Problems/Assumptions: Provide a complete listing of all relevant risk identification and mitigation associated with the implementation and performance of the statement of work. Concisely describe or explain each listed item, and discuss its relevance and/or total impact on technical feasibility, overall timeframe to accomplish the project, etc. Specify all important assumptions which have been utilized in developing the proposed technical approach (e.g., Government-provided resources, required subcontracted efforts or items, scheduling and availability, etc.).

**b. Personnel:** The personnel will be evaluated on the quality of the personnel's education, experience and other skills/abilities to accomplish the technical functions as follows:

- 1) **ADP Skills:** Extensive systems requirements definition, design and analysis for Navy enterprise systems. Experience developing WEB Services with the J2EE application model using WEB Service Definition Language (WSDL) files and Simple Object Access Protocol (SOAP.) Experience designing and developing interfaces between new and emerging US Navy software suites and legacy US Navy software suites. System administrator experience on workstations and servers within the Navy’s shore based and shipboard enterprise networks. Experience developing systems that will function both in a connected (networked) and disconnected (standalone) mode with synchronization upon reconnect. Experience with service-oriented architecture (SOA) and development of application services using the SOA approach. Experience with Human Systems Integration (HSI) process and Performance Centered Design (PCD) application.
- 2) **Functional Skills:** Analysis and programming background with complex shipboard digital library systems, technical manuals, training and graphic applications within information systems. Extensive experience and knowledge of US Navy Submarine on-board operations requirements including, command operations, watchstanding, training, maintenance, technical documents and procedures are required. Experience in the design, development, configuration control, distribution and life cycle support of US Navy Submarine Electronic Technical Manuals (ETMs)/Interactive Electronic Technical Manuals (IETMs) and other digital library products. Experience with submarine hardware and software such as TIDS, RAIDs, NTDPS and, IT-21.
- 3) **Languages/Software products:** C, C++, SQL, WSDL, MySQL, JBoss, SOAP, Oak Grove Reactor, Java, JSP, XML, SGML, HTML, XHTML, DTD development, and schema development experiences are highly desirable.
- 4) **Other Skills:** Leadership, project management and teaming skills to plan, execute and perform the task order. Effective verbal and written communications skills to interface/train the functional users and prepare documentation. Experience developing and leading highly effective teams located in different locations.

**c. Corporate Experience/Past Performance:** Corporate experience will be evaluated with emphasis on the projects and skills relating to the statement of work.

d. Any product enhancements or performance elements that exceed the RFP requirements, and would provided benefit to the Government.

Technical capability plans shall be no more than **15** pages single spaced on 8 ½ x 11” paper in not less than a 10 point font.

Resumes will not be included in the page count.  
Past Performance:

a) **Past Performance Worksheet** - Offerors shall demonstrate past performance by completing Past Performance Worksheet(s) (see Enclosure 1). Offerors are encouraged to submit brief and concise responses. Data submitted by the contractor other than that requested on the Past Performance Worksheet(s) will not be considered. **Failure to submit Past Performance Worksheet shall be considered certification that the contractor has no past performance for like or similar items for the Government to evaluate.**

b) **Number of Contracts** - Complete a Past Performance Worksheet for up to five of your most recently completed Federal Government contracts (not to exceed three years since completion) for like or similar items under this solicitation. If you do not have any Federal Government contracts, then list state, local, or commercial contracts, in that order, to complete your Past Performance Worksheets.

## EVALUATION CRITERIA

Award under this effort will be made to the technically acceptable offer which provides the best value to the Government, technical, past performance, and price considered. In determining the best value to the government, a trade-off analysis of the relative benefits of technical, past performance, and price will be performed, if necessary. Inherent in the trade-off analysis process is the assessment of risk, and its impact on contract performance.

**Technically Acceptable** – In order to be determined technically acceptable, offers must meet or exceed the specifications in the solicitation. The offer must be determined to be technically acceptable before further consideration.

**Evaluation Factors** – Offers that are determined to be technically acceptable will be evaluated in terms of technical, past performance, and price. Technical Understanding is moderately more important than past performance. Technical Understanding and Past Performance combined are moderately more important than Price.

**Past Performance** - Evaluation of past performance information (see Proposal Submittal Requirements) will include, but not be limited to, relevance and extent of previous contracts, quality and conformance of product/services to specifications, timely delivery and customer satisfaction. Information utilized will be obtained from contractor references as well as any other sources which may have relevant information. Contractor references that cannot be contacted will not be considered. An offer with no relevant past performance history may not represent the most advantageous proposal to the Government.

Although price is important, it is NOT the most important evaluation factor. Offers will be evaluated and award will be based upon the best value to the Government. In making this determination, the Government is concerned with striking the most advantageous balance between, technical, past performance and price factors. The closer the technical and past performance rates are to one another, the greater the importance of price in making the award determination.

In determining the best value offer, the Contracting Officer may consider elements of a technical proposal that exceed the stated requirements, and are deemed to be of value to the Government.

The reasonableness of the quoted price will be evaluated. In addition to generally accepted price analysis techniques, congruence between the technical and price proposals may be utilized to determine the reasonableness of the quoted price as well as potential performance risk.

No award will be made at other than a fair and reasonable price.

ENCLOSURE (1)

**PAST PERFORMANCE WORKSHEET**

*The Government highly prefers that you submit your company's five most recent references (relevant to the requirements outlined in this solicitation document), all of which should be Government references. The Government references should be a Contracting Officer (CO) and a Program Manager or equivalent. Relevance is determined by considering the products provided, dollar value, period of performance, and worldwide delivery and warranty support capabilities. Attached is the Past Performance Questionnaire that must be submitted with your offer. In addition, discuss any contractual vehicles (contracts, delivery orders, etc.) terminated for default by a CO affecting your company within the past five years. Also, describe all instances in which your company has ever been the subject of, or party to, a proposed debarment/suspension case and the outcome. Failure to comply with these instructions may result in elimination from further consideration.*

**Reference #1**

Procurement vehicle title/contract number:	
Type (e.g., ID/IQ, BPA, etc.):	
Period of Performance:	
Prime or sub:	
Description of products and services:	
Original procurement vehicle \$ value:	
Sales to date \$:	

Primary Points of Contact	Name	Agency	DSN Phone	Commercial Phone	Commercial Fax	E-mail Address
Program Manager:						
Contracting Officer:						

**Reference #2**

Procurement vehicle title/contract number:	
Type (e.g., ID/IQ, BPA, etc.):	
Period of Performance:	
Prime or sub:	
Description of products and services:	
Original procurement vehicle \$ value:	
Sales to date \$:	

Primary Points of Contact	Name	Agency	DSN Phone	Commercial Phone	Commercial Fax	E-mail Address
Program Manager:						
Contracting Officer:						

**Reference #3**

Procurement vehicle title/contract number:	
Type (e.g., ID/IQ, BPA, etc.):	
Period of Performance:	
Prime or sub:	
Description of products and services:	
Original procurement vehicle \$ value:	
Sales to date \$:	

Primary Points of Contact	Name	Agency	DSN Phone	Commercial Phone	Commercial Fax	E-mail Address
Program Manager:						
Contracting Officer:						

**Reference #4**

Procurement vehicle title/contract number:	
Type (e.g., ID/IQ, BPA, etc.):	
Period of Performance:	
Prime or sub:	

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Description of products and services:	
Original procurement vehicle \$ value:	
Sales to date \$:	

Primary Points of Contact	Name	Agency	DSN Phone	Commercial Phone	Commercial Fax	E-mail Address
Program Manager:						
Contracting Officer:						

**Reference #5**

Procurement vehicle title/contract number:	
Type (e.g., ID/IQ, BPA, etc.):	
Period of Performance:	
Prime or sub:	
Description of products and services:	
Original procurement vehicle \$ value:	
Sales to date \$:	

Primary Points of Contact	Name	Agency	DSN Phone	Commercial Phone	Commercial Fax	E-mail Address
Program Manager:						
Contracting Officer:						

The vendor may provide information on problems encountered on the contracts and subcontracts identified above and corrective actions taken to resolve those problems. Companies should not provide general information on their performance on the identified contracts. General performance information will be obtained from the references.

PLEASE ENSURE ALL THE ABOVE REFERENCED INFORMATION IS CORRECT.



Desired Outcomes	Required Service	Performance Standard	Acceptable Quality Level (AQL) (How much error will we accept?)	Monitoring Method	Incentives/Disincentives for Meeting or Not Meeting the Performance Standards
Software Development					
Enterprise architecture standards shall be met, along with functional requirements. A successful operational capability demonstration (OCD) will be performed prior to full implementation.	All functional requirements shall be met; software delivered shall comply with enterprise architecture standards, including security.	All architectural requirements shall be met. Functional requirements shall be prioritized to allow for not more than 1% deviation for each requirement. OCD results will be analyzed in accordance with the QAP.		Review OCD test results and analyses to ensure that required functionality is provided. Obtain and analyze user feedback. Review documentation for enterprise architecture compliance.	Full payment for 100% compliance. If provided for in the contract, payment less than 100% may be made for less than full compliance if less than full functionality is accepted.
User guides and other documentation provided are accurate, complete, and easy to use.	Documentation shall meet agency requirements for accuracy, completeness, and ease of use.	95% of documentation provided meets the stated standards.		Review documentation via independent verification and validation (IV&V) to ensure functions and operations are properly documented. Survey system administrators and end users for ease of use.	For each percent in excess of 95%, the contractor shall receive and extension of the software support agreement for an additional 3-month period.
Interfaces with all system components are fully functional and seamless to the users.	Software provided shall be fully compatible with existing LAN and software suite existing on US Navy Submarines	100% compliance is required for customer satisfaction, performance, and utility.		Review system administration logs, noting any service interruptions; contact users; conduct independent verification and validation (IV&V) tests using commercial performance tests.	Full payment shall be made for 100% compliance. Additional fees may be awarded if the contractor successfully reengineers interfaces and improves performance.
Software capable of performing the requisite functions shall be delivered in accordance with the stated schedule, including shorter -term milestones.	Delivery dates set forth in the contract are met or exceeded.	The stated delivery date shall be met unless the Government and the Contractor agree to a new completion date.		100% inspection.	For each week ahead of schedule the software and documentation are delivered, the contractor shall receive a .5% rebate of reduced labor rates from the standard GSA schedule. No rebate will be paid for non-conforming deliverables.
Installation and embedded training will be appropriate for users needs and for the intended use of the new software modules.	Upon completion of training, each user is able to function at not less than the 85% level. (Full proficiency obtained within 40 hours of actual hands-on experience.)	90% of users trained can perform at the 85% proficiency level.		User surveys and proficiency tests.	Full payment shall be made for 100% compliance.

Desired Outcomes	Required Service	Performance Standard	Acceptable Quality Level (AQL) (How much error will we accept?)	Monitoring Method	Incentives/Disincentives for Meeting or Not Meeting the Performance Standards
System Design/Business Process Re-Engineering The contractor shall have a thorough understanding of the business process(s) requiring redesign.	Key program managers will be interviewed, system inputs and outputs analyzed, commercial practices shall be analyzed, so Contractor can present the current process and recommend a re-designed process.	All architectural, security, system and cost restraints shall be analyzed; the contractor shall present an accurate representation of the current system status, both narratively and via graphic depictions. Both shall demonstrate a complete understanding of current status and desired goal.		Reports shall be analyzed by all major stakeholders in the process, including security experts and a sampling of internal and external customers.	Share-in-savings program (negotiated prior to contract award). Contractor shall be paid according to a negotiated payment plan; share-in-savings shall be calculated one year after implementation.
All phases of the project are completed on time.	Delivery of interim reports, recommendations, designs, installations, and implementations are all completed on time.	100% compliance is required. Early or late delivery shall impact the share-in-savings plan, as negotiated.		Periodic reviews of work-in-progress; 100% inspection of all deliverables by all major stakeholders	Share-in-savings program (negotiated prior to contract award). Contractor shall be paid according to a negotiated payment plan; share-in-savings shall be calculated one year after implementation.